

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-112 (canceled)

113. (New) A Pan ANT antibody that recognizes (i) a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31, (ii) a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32, and (iii) a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

114. (New) An isoform-specific antibody that recognizes a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31.

115. (New) An isoform-specific antibody that recognizes a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32.

116. (New) An isoform-specific antibody that recognizes a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

117. (New) A polypeptide for use in the preparation of a Pan ANT antibody, comprising a polypeptide having the amino acid sequence set forth in SEQ ID NO:17, wherein the Pan ANT antibody recognizes (i) a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31, (ii) a human adenine nucleotide

translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32, and (iii) a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

118. (New) A polypeptide for use in the preparation of an adenine nucleotide translocator 3 isoform-specific antibody, comprising a polypeptide having the amino acid sequence set forth in SEQ ID NO:18, wherein the isoform-specific antibody recognizes a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

119. (New) A polypeptide for use in the preparation of an adenine nucleotide translocator 2 isoform-specific antibody, comprising a polypeptide having the amino acid sequence set forth in SEQ ID NO:19, wherein the isoform-specific antibody recognizes a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32.

120. (New) A polypeptide for use in the preparation of an adenine nucleotide translocator 1 isoform-specific antibody, comprising a polypeptide having the amino acid sequence set forth in SEQ ID NO:20, wherein the isoform-specific antibody recognizes a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31.

121. (New) A method for determining the presence of an adenine nucleotide translocator (ANT) polypeptide in a biological sample comprising:

contacting a biological sample suspected of containing an ANT polypeptide with an antibody that recognizes a human ANT polypeptide, under conditions and for a time sufficient to allow binding of the antibody to the ANT polypeptide; and

detecting the binding of the antibody to the ANT polypeptide, and therefrom determining the presence of the ANT polypeptide in said biological sample, wherein the antibody

is selected from the group consisting of:

(a) a Pan ANT antibody that recognizes (i) a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31, (ii) a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32, and (iii) a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33,

(b) an isoform-specific antibody that recognizes a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31,

(c) an isoform-specific antibody that recognizes a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32, and

(d) an isoform-specific antibody that recognizes a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

122. (New) The method of claim 121 wherein the adenine nucleotide translocator polypeptide is a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31.

123. (New) The method of claim 121 wherein the adenine nucleotide translocator polypeptide is a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32.

124. (New) The method of claim 121 wherein the adenine nucleotide translocator polypeptide is a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

125. (New) A method for isolating an adenine nucleotide translocator (ANT) polypeptide from a biological sample, comprising:

contacting a biological sample suspected of containing an ANT polypeptide with an antibody that recognizes a human ANT polypeptide, under conditions and for a time sufficient to allow binding of the antibody to the ANT polypeptide; and

recovering the ANT polypeptide, and thereby isolating the ANT polypeptide from the biological sample, wherein the antibody is selected from the group consisting of:

(a) a Pan ANT antibody that recognizes (i) a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31, (ii) a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32, and (iii) a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33,

(b) an isoform-specific antibody that recognizes a human adenine nucleotide translocator 1 polypeptide having an amino acid sequence as set forth in SEQ ID NO:31,

(c) an isoform-specific antibody that recognizes a human adenine nucleotide translocator 2 polypeptide having an amino acid sequence as set forth in SEQ ID NO:32, and

(d) an isoform-specific antibody that recognizes a human adenine nucleotide translocator 3 polypeptide having an amino acid sequence as set forth in SEQ ID NO:33.

126. (New) The method of claim 125 wherein the antibody that recognizes a human ANT polypeptide is covalently bound to a solid phase.

127. (New) The method of claim 125 wherein the antibody that recognizes a human ANT polypeptide is non-covalently bound to a solid phase.